

Application Serial No.: 10/624,573
Reply to Office Action dated April 26, 2005

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-14 are presently active in this case, Claims 1, 4, 5, 9, and 13 having been amended by way of the present Amendment.

In the outstanding Official Action, Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over Bardutsky et al. (U.S. Patent No. 4,594,068) in view of paragraphs [0004] and [0005] of the present application. Claims 1-4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Rise (U.S. Patent No. 5,195,430) in view of paragraphs [0004] and [0005] of the present application. Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Beery (U.S. Patent No. 4,768,050) in view of paragraphs [0004] and [0005] of the present application. Claims 5-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Curry et al. (U.S. Patent No. 6,119,969) in view of paragraphs [0004] and [0005] of the present application. For the reasons discussed below, the Applicants request the withdrawal of the obviousness rejections.

The basic requirements for establishing a *prima facie* case of obviousness as set forth in MPEP 2143 include (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there must be a reasonable expectation of success, and (3) the reference (or references when combined) must teach or suggest all of the claim limitations. The Applicants submit that a *prima facie* case of obviousness cannot be established in the present case because the references, either taken singularly or in combination, do not teach or suggest all of the claim limitations.

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Claim 1 of the present application recites a method of producing a heating roller comprising drawing a core of hollow cylinder form, and cutting an outer circumference surface of the core, wherein a thickness of the core is greater in a center portion thereof than in end portions thereof, and wherein the core is provided with bearings on the outer circumference surface thereof. The Applicants submit that the cited references, either taken singularly or in combination, do not teach or suggest all of the above claim limitations.

Regarding the obviousness rejection of Claim 1 based on the Bardutzky et al. reference and the cited paragraphs of the specification of the present application, the Applicants submit that neither of these references disclose or suggest a core that is provided with bearings on the outer circumference surface thereof. Figure 1 of the Bardutzky et al. reference clearly depicts interior bearings. Additionally, the cited portion of the present specification does not supplement this deficiency. Accordingly, the Applicants submit that a *prima facie* case of obviousness cannot be established for Claim 1 based on these references, and therefore the Applicants respectfully request the withdrawal of the obviousness rejection of Claim 1 based on these references.

Regarding the obviousness rejection of Claim 1 and dependent Claims 2 and 3 based on the Rise reference and the cited paragraphs of the specification of the present application, the Applicants submit that neither of these references disclose or suggest a core that is provided with bearings on the outer circumference surface thereof. Figure 14 of the Rise reference clearly depicts bearings provided on a shaft inserted within the shell 150, which is cited for the teaching of the core of a hollow cylinder form of Claim 1. Additionally, the cited portion of the present specification does not supplement this deficiency. Accordingly, the Applicants submit that a *prima facie* case of obviousness cannot be established for Claim

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I based on these references, and therefore the Applicants respectfully request the withdrawal of the obviousness rejection of Claims 1-3 based on these references.

Claim 4 of the present application recites a method of producing a heating roller, comprising drawing a core of hollow cylinder form, and cutting an outer circumference surface of the core, wherein a thickness of the core is greater in a center portion thereof than in end portions thereof, and wherein in the cutting step, the core is cut such that an outside diameter of the core is smaller in the center portion thereof than in the end portions thereof, and wherein the core is provided with bearings on the outer circumference surface thereof. The Applicants submit that the cited references, either taken singularly or in combination, do not teach or suggest all of the above claim limitations.

Regarding the obviousness rejection of Claim 4 based on the Rise reference and the cited paragraphs of the specification of the present application, the Applicants submit that neither of these references disclose or suggest a core that is provided with bearings on the outer circumference surface thereof for the reasons discussed above with respect to the same limitation in Claim 4. Accordingly, the Applicants submit that a *prima facie* case of obviousness cannot be established for Claim 4 based on these references, and therefore the Applicants respectfully request the withdrawal of the obviousness rejection of Claim 4 based on these references.

Regarding the obviousness rejection of Claim 4 based on the Beery reference and the cited paragraphs of the specification of the present application, the Applicants submit that neither of these references disclose or suggest a core that is provided with bearings on the outer circumference surface thereof. Figures 1, 2, and 7 of the Beery reference clearly depicts bearings provided on a shaft inserted within the first roll 10, which is cited for the

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teaching of the core of a hollow cylinder form of Claim 4. Additionally, the cited portion of the present specification does not supplement this deficiency. Accordingly, the Applicants submit that a *prima facie* case of obviousness cannot be established for Claim 4 based on these references, and therefore the Applicants respectfully request the withdrawal of the obviousness rejection of Claim 4 based on these references.

Claims 5 and 9 of the present application recite methods of producing a heating roller, a core of hollow cylinder form is provided with bearings on an outer circumference surface thereof. The Applicants submit that the cited references, either taken singularly or in combination, do not teach or suggest all of the above claim limitations.

Regarding the obviousness rejection of Claims 5 and 9 based on the Curry et al. reference and the cited paragraphs of the specification of the present application, the Applicants submit that neither of these references disclose or suggest a core that is provided with bearings on the outer circumference surface thereof. The Official Action states that the core of the Curry et al. reference is “presumably” supported by bearings at its ends, citing feature 103 as the ends. Firstly, the Curry et al. reference does not disclose bearings. Secondly, the Curry et al. reference does not disclose any particular manner in which the ends of the fixing roller (52) are supported. The Curry et al. reference mentions that reference numeral 103 represents connector portions of the roller through which the roller is connected to the remainder of the fuser machine. However, the Curry et al. reference does not disclose how the connector portions (103) are connected. As seen in the Bardutzky et al., Rise, and Beery references, there are many manners of supporting rollers that do not include the bearing configuration recited in Claims 5 and 9. Thus, the Applicants submit that the Curry et al. reference does not disclose or suggest a core of hollow cylinder form is provided with

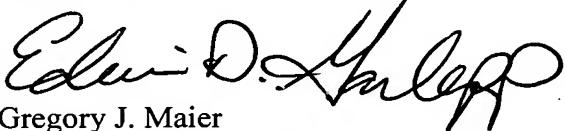
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bearings on an outer circumference surface thereof, as recited in Claims 5 and 9 of the present application absent impermissible hindsight considerations. Additionally, the cited portion of the present specification does not supplement this deficiency. Accordingly, the Applicants submit that a *prima facie* case of obviousness cannot be established for Claims 5 and 9 based on these references, and therefore the Applicants respectfully request the withdrawal of the obviousness rejection of Claims 5-14 based on these references.

Consequently, in view of the above discussion, it is respectfully submitted that the present application is in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully Submitted,

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